



2500C-8-RTD RTD Input Module



DESCRIPTION

The 2500C-8-RTD is a high-speed 8-point RTD input module designed to translate RTD signals into a scaled temperature value. This module is designed to work in a CTI 2500 Series Compact I/O base.

FEATURES

- 8 RTD inputs
- Supports Classic and Classic Plus Modes
- 7 Segment Display for Module Status indication
- No user calibration
- Supports 2, 3 and 4 wire RTDs
- Software Configurable Range Selection
- Uses 2500C-32F removable wiring connector

2500-8-RTD Default Shipment Settings	
Operation Mode	Classic Mode
Logon	8WX
RTD	100Ω Pt
RTD Type	3 Wire
Temperature Units	Degrees C
Digital Filtering	Enabled

Input Specifications		
Operation Mode Support (See Note 1)	Classic Mode	Classic Plus Mode
Channels	8 RTD Inputs	
Module Logon	8WX	16WX/8WY
Module Update Time all modes	9 mSec	
Digital Filtering Time Constant	1000 mSec or 1 second	
Supported RTD Types (Note: All the ranges are available in Classic Plus Mode.)	Platinum 0.003850 (European DIN) Platinum 0.003916 (American) Platinum 0.003902 Platinum 0.003920 Copper 0.004274 Nickel 0.006720 Nickel 0.006178 (European DIN)	
Supported Ohm Values @ 0° C (Note: All the ranges are available in Classic Plus Mode.)	100Ω, 120Ω, 130Ω, 200Ω, 500Ω, 1000Ω, 10Ω, 9.03Ω	
Measurement Ranges (Note: All the ranges are available in Classic Plus Mode.)	10Ω Cu: -100°C to 260°C (-148°F to 500°F) 100Ω Pt: -200°C to 850°C (-328°F to 1562°F) 120Ω Pt: -80°C to 260°C (-112°F to 500°F)	
Supported Probe Types Note: 2/4 wire RTDs supported in Classic Plus Mode only.	2, 3, 4 Wire	
RTD Excitation Current	250μA	
Lead Compensation	1000Ω per lead wire (max)	
Repeatability	±0.1°C, ±0.2°C for all RTD Types	
Measurement Units	Degrees C or Degrees F selectable	
Resolution (15 bits plus sign)	0.1°C	
Accuracy	100Ω Pt 0.9°C (1.6°F) from 0-60°C Ωx100 0.36Ω from 0-60°C	
Common Mode Rejection	>130db @ 60Hz	
Normal Mode Rejection	-80db @ 60Hz,	
Backplane Power (MAX)	1.123 watts	
Input ESD Protection	IEC 1000-4-2 Level 4	
Over-range Protection	30VDC or VAC continuous	
Isolation	Channel to Backplane 1500VDC	
Operating Temperature Range	0°C to 60°C (32°F to 140°F)	
Agency Approvals Pending	UL, ULC, UL Class 1, Div 2, CE	
Shipping Dimensions and Weight	223.84mm x 109.86mm x 34.93mm, 0.234kg	
Storage Temperature Range	-40°C to 85°C (-40°F to 185°F)	
Relative Humidity	5% to 95% (non-condensing)	



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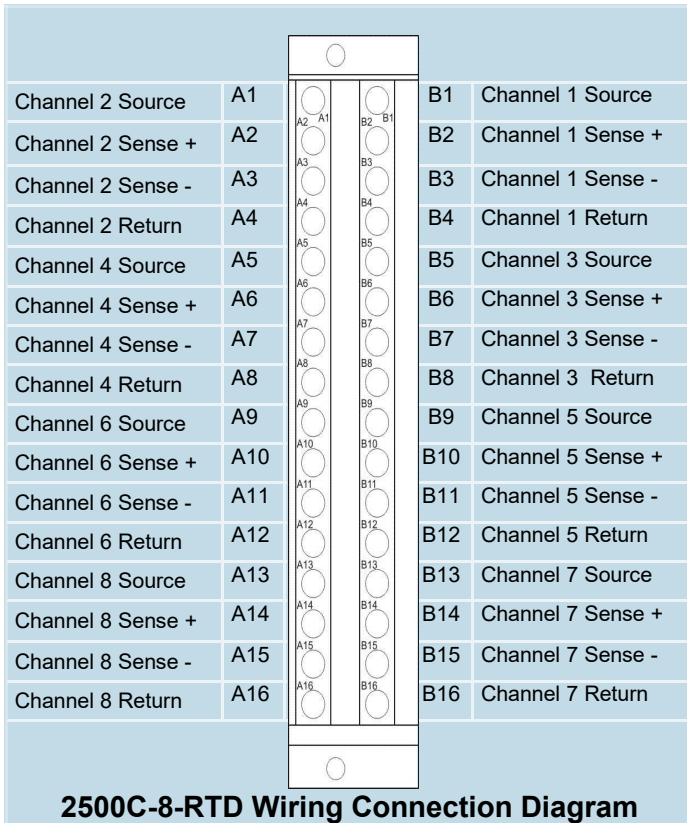




2500 Series™ Compact System



2500C-8-RTD RTD Input Module



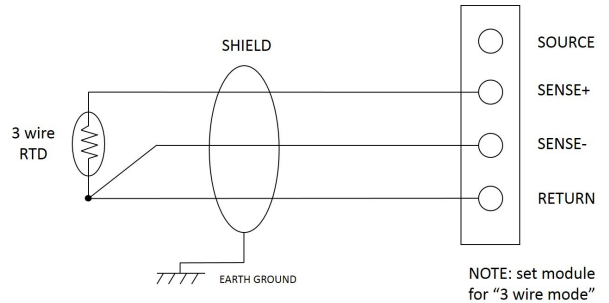
Note:

The 2500C-8-RTD Input Module uses CTI Wiring Connector 2500C-32F. Please see the wiring connector specification table below. This connector is ordered separately from the module.

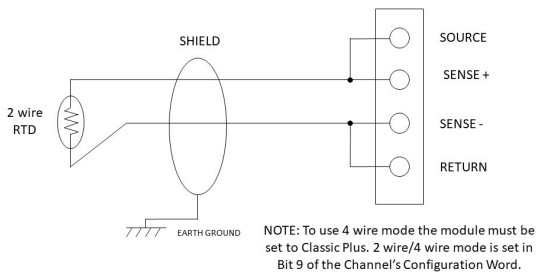
2500C-32F Specifications	
Connector Style	Removable
Number of Wiring Connections	32 point
Wire Gauge (Copper Conductors)	14 to 22AWG
Screw Torque Value	5.22 lb-in
Current Rating	6A @ 300VAC
Insulation Stripping Length	0.24" 6mm
Connector Material	
Body:	Polycarbonate UL 94V0
Screw :	M3 Zinc plated Steel
Cage Clamp	Nickel Plated Brass
Socket Contact Spring:	Tin Plated Bronze
Retaining Screw:	M3 Zinc Plated Steel

7 Segment LED Code Description	
0	Normal Operation
A	Internal RAM Fail
b	Code Memory Failure
C	Internal MOVx RAM Failure
d	Shared RAM Failure
L	Lookup Table Flash Failure

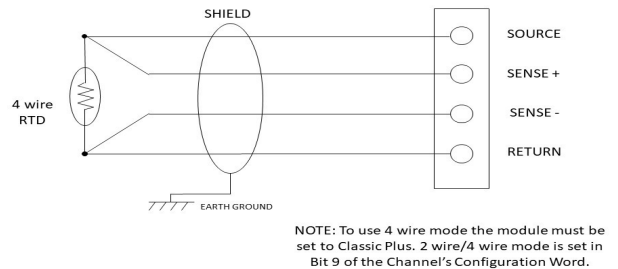
Typical Circuit—3 Wire RTD



Typical Circuit—2 Wire RTD



Typical Circuit—4 Wire RTD



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